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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/553,581	KASPAR ET AL.	
	Examiner	Art Unit	
	JASON L. SAVAGE	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 December 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) *20-25* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Specification

The newly amended specification is objected to because paragraphs [0013] and [0026] as amended in the Amendment submitted 12-4-09 are awkward and do not make sense after the references to the claims has been removed.

Correction is required. See MPEP § 608.01(b).

Claim Objections

Claims 6 and 9 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Due to the amendment to claim 1, the limitations recited in claims 6 and 9 repeat limitations already included in the parent claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form..

It is also noted that in the most recent amendment non-elected claims 20-25 are not mentioned. When submitting amendments to the claims a full listing of all claims pending or canceled should be included. For the time being the claims have been treated as being withdrawn.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5, 7-8 and 10-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5, 7-8 and 10 include limitations which are broader and thus conflicting with the now amended parent claim 1. The claims should be canceled or amended to be commensurate in scope with claim 1.

Claims 11-12 recite broader ranges followed by narrower range which makes the claim indefinite since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

Regarding claim 11, the recitation that the coating is deposited by a PVD processes, *especially by sputtering* renders the claim indefinite.

Regarding claim 12, the disclosures that the main body material may be a CuNiSi(X) alloy, (such as) C7025, C7026 renders the claim indefinite since it is not clear if alternate CuNiSi(X) alloys other than the two explicitly recited are suitable. The same

issue exists with the alloys for (b), ©, (d), (e) which still recites "for example", (f), (g), (h), (i), (j), (k).

Appropriate correction or clarification is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ricketts et al (US 5,967,860) in view of Koichi (JP 59-153852 English Abstract).

Ricketts teaches electrical plug-in connectors having a silver-based coating exhibiting prolonged fretting wear durability at elevated temperatures (col. 1, ln. 5-41). Ricketts further teaches the silver-based coating has a thickness between 0.5-2 μm and contains additions of nickel and carbon dispersed as discontinuous phases throughout a continuous silver phase (col. 2, ln. 36-67). Rickets is silent to the addition being tungsten or molybdenum in the amount claimed.

However, Koichi teaches an electrical contact material having improved consumption and welding resistance by adding specified percentages of various additives including Ni, W and Mo (abs). Ricketts further teaches that Mo and W may be added to the silver coating material between 0.05-5.0 wt % (abs). As such, it would have been obvious to have added 0.05-5 wt% of a known additive such as W or Mo as

taught by Koichi to the material of Ricketts to form a contact material having improved consumption resistance.

Regarding claims 2-4, the coating thickness of Ricketts overlaps and anticipates the claimed thickness between 0.3-2.0 μm.

Regarding claims 5-10 and 15, the addition of molybdenum or tungsten being provided between .5-5 wt% as set forth above would meet the claim limitations. Regarding claim 15, it would have been obvious to have selected added between 4-5% of tungsten of molybdenum and provided a coating having a thickness between 0.5-2.0 μm since the references teach that such ranges are suitable for use.

Regarding claim 11, the claims are drawn to an article, not the method of making. Although Ricketts teaches forming the coating by electrodeposition, absent a teaching of the criticality or showing of unexpected results from employing any particular PVD process it would not provide a patentable distinction over the prior art.

Regarding claim 12, although Ricketts teaches that copper alloys and stainless steel are conventionally employed (col. 1, ln. 42-43), it is silent to the specific alloys such as those claimed. However, the recited alloys are conventional copper alloys employed in electrical applications. It would have been obvious to one of ordinary skill in the art to have selected any known copper or stainless steel alloy known to be suitable for use as connector substrate in the connectors of Ricketts as modified by Koichi with a reasonable expectation of success.

Regarding claim 13, Ricketts teaches a connector strip **14** (Fig 1).

Regarding claim 14, the claims are drawn to an article, not the method of making. However, the strip of Ricketts would be considered to be as pre-punched as the article claimed by Applicant.

Regarding claims 16-17, Ricketts teaches forming an intermediate layer of nickel (col. 2, ln. 52-67) which would serve as a diffusion-inhibiting layer such as claimed.

Regarding claim 18, Ricketts further teaches that a silver topcoating may be applied to the product to stabilize the contact resistance (col. 2, ln. 60-67). The contact having such a silver topcoat would meet the claim limitation wherein the concentration of the addition at the surface of the silver coating is lower than at a deeper region within the coating.

Regarding claim 19, the contacts of Ricketts are plug-in connecting contacts (col. 1, ln. 12-41).

Response to Arguments

Applicant's arguments filed 12-4-09 have been fully considered but they are not persuasive.

Applicant argues that Ricketts has no disclosure of Mo or W and Koichi is drawn to a bulk material since it refers to silver and oxide material and not an electro plating method. Applicant further asserts that electro plating of tungsten and molybdenum is also not feasible as there would be no way to create molybdenum or tungsten ions in a solution.

First, the claims are drawn to an article, not the method of making. Koichi clearly teaches that the addition of materials such as W and Mo to a Ag-Ni contact material provides improved consumption and welding resistance. Ricketts teaches electrical contacts durability formed from an Ag-Ni contact material. As such, forming a coating containing additions of W and Mo in the amount claimed is considered obvious. It is well settled that the test of obviousness is not whether the features of one reference can be bodily incorporated into the structure of another and proper inquiry should not be limited to the specific structure shown by the references, but should be into the concepts fairly contained therein, and the overriding question to be determined is whether those concepts would suggest to one of ordinary skill in the art the modifications called for by the claims, In re Van Beckum, 169 USPQ 47 (CCPA 1971), In re Bozek, 163 USPQ 545 (CCPA 1969); In re Richman, 165 USPQ 509 (CCPA 1970); In re Henley, 112 USPQ 56 (CCPA 1956); In re Sneed, 218 USPQ 385 (Fed. Cir. 1983).

In response to the issue whether the reference is nonanalagous art, it has been held that the determination that a reference is from a nonanalogous art is twofold. First, one decides if the reference is within the field of the inventor's endeavor. If it is not, one proceeds to determine whether the reference is reasonably pertinent to the particular problem with which the inventor was involved, In re Wood, 202 USPQ 171, 174. In the instant case, both Koichi and Ricketts are generally drawn Ag-Ni contact materials exhibiting improved properties making it suitable for use in electrical contacts.

Second, regarding the argument that there is no way for Mo or W to be formed by electro plating, Applicant has provided no evidence supporting this assertion. Furthermore, it would have been considered obvious to one of ordinary skill in the art to have determined a suitable alternate method of providing a coating of an Ag-Ni alloy containing additions of W and Mo so as to provide a contact material having improved durability.

As such, Applicant's arguments are not found to be persuasive and the rejection to the claims has been maintained.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON L. SAVAGE whose telephone number is (571)272-1542. The examiner can normally be reached on M-F 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason Savage/
Examiner
3-24-10

/Jennifer C. McNeil/
Supervisory Patent Examiner, Art Unit 1794